

#8

9th March 25th 1826

An Essay on Trachitis

by Jacob Lenty

of

Pennsylvania

1825-

Sept 28 - 1880

The day was clear

and bright

and warm

1880

On Croup -

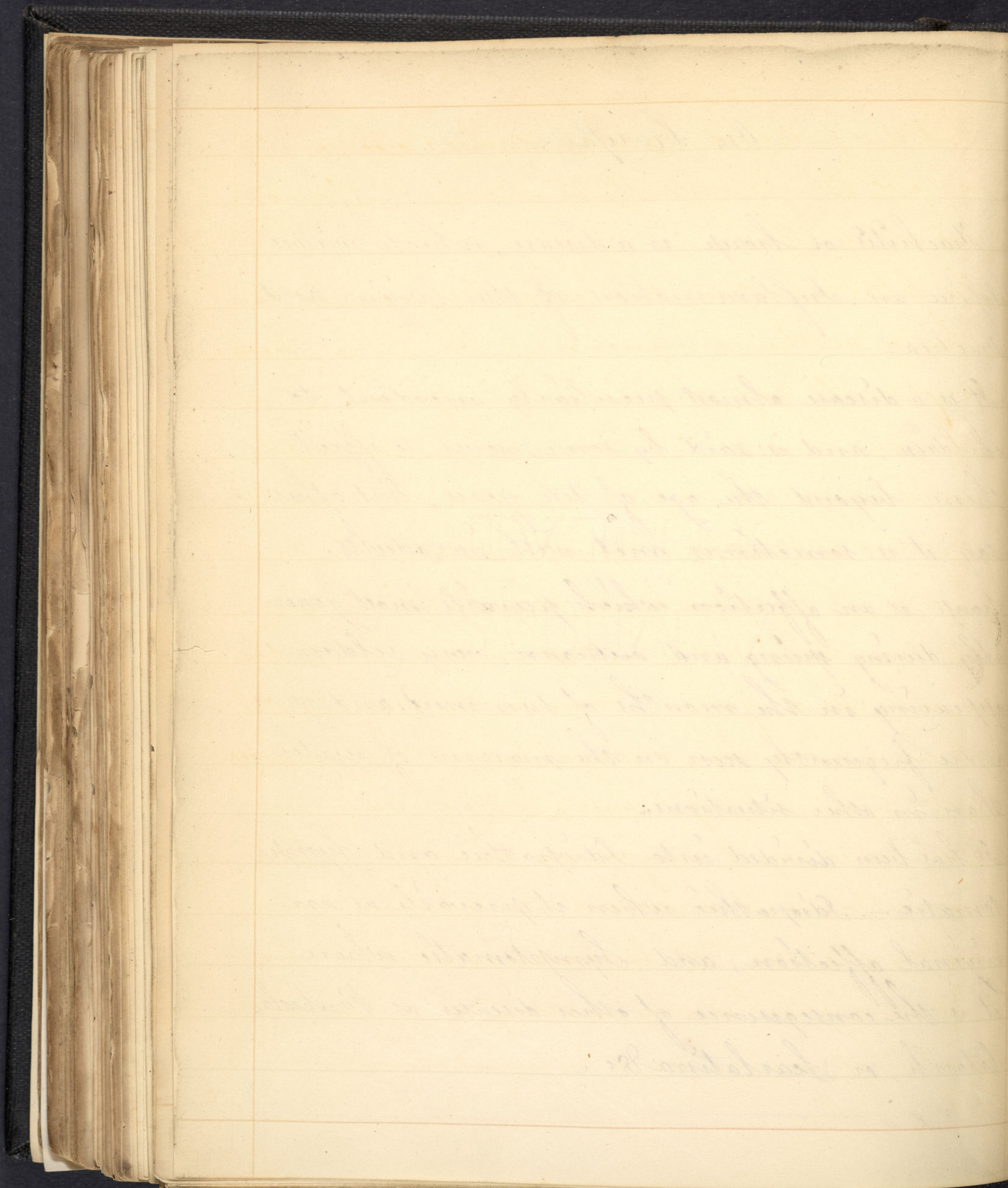
Trachitis or Croup is a disease, which writers define an Inflammation of the larynx and trachea -

It is a disease almost peculiarly incident to children, and is said by some never to affect them beyond the age of ten years, but others say it is sometimes met with in adults.

Croup is an affection which prevails most generally during spring and autumn, very seldom appearing in the months of summer, and is more frequently seen on the margins of water than, in other situations.

It has been divided into Idiopathic and Symptomatic - Idiopathic when it prevails as an original affection, and Symptomatic, where it is the consequence of other diseases, as Rubella, latarch, or Scarlatina &c.

That it is

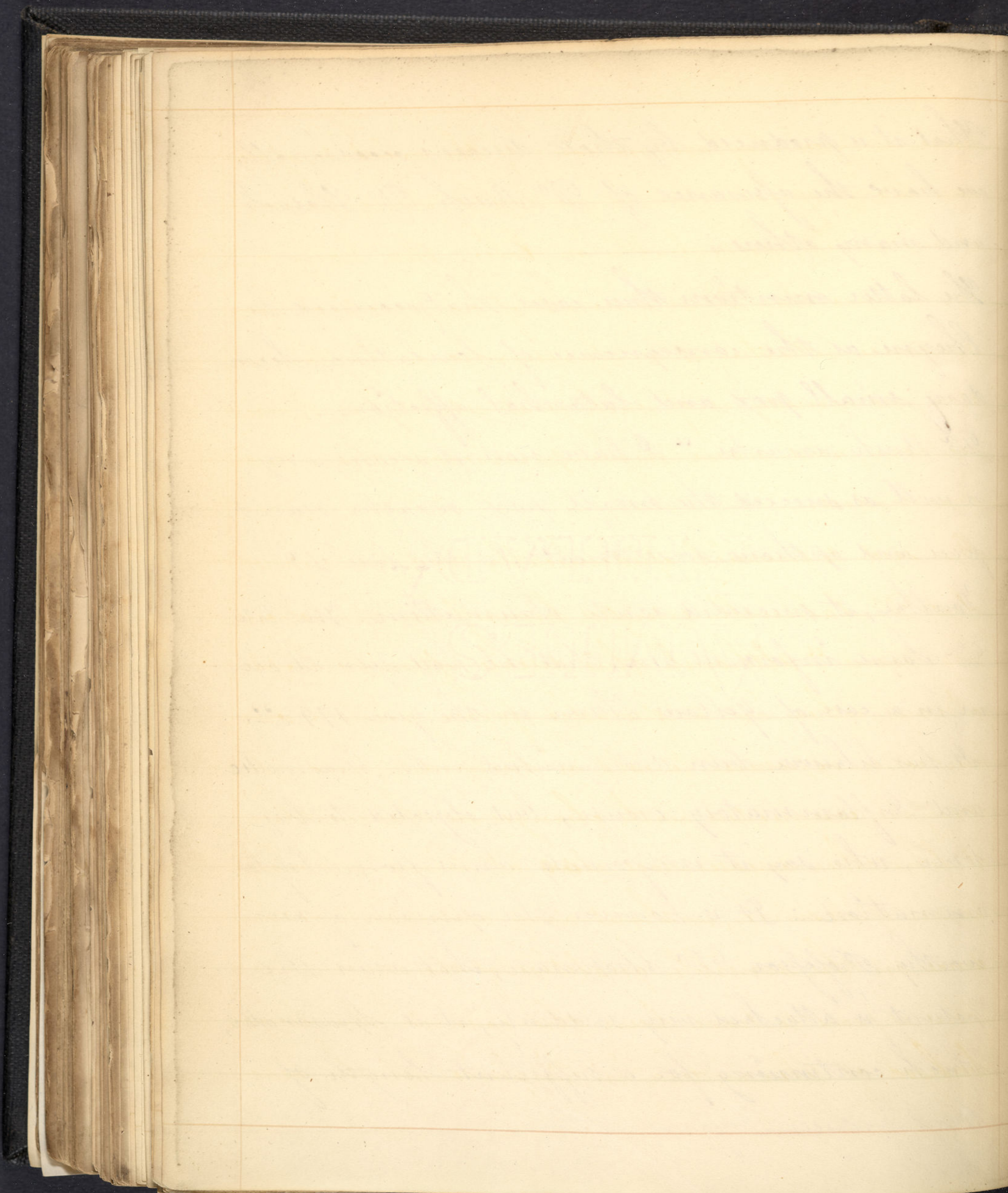


That it is produced by those diseases occasionally we have the assurance of Dr Rush, Dr Hosack and many others -

The latter mentions three cases, that occurred to them as the consequence of Scarlatina, Secondary small pox, and laryngeal affection -

Dr Rush remarks "I have seen it accompany as well as succeed the small pox, measles, scarlet fever, and aphthous sore throat. In the late Dr Goulbe, it succeeded acute rheumatism. The late Dr Sayre informed me, that he had seen it occur in a case of Yellow Fever in the year 1798".

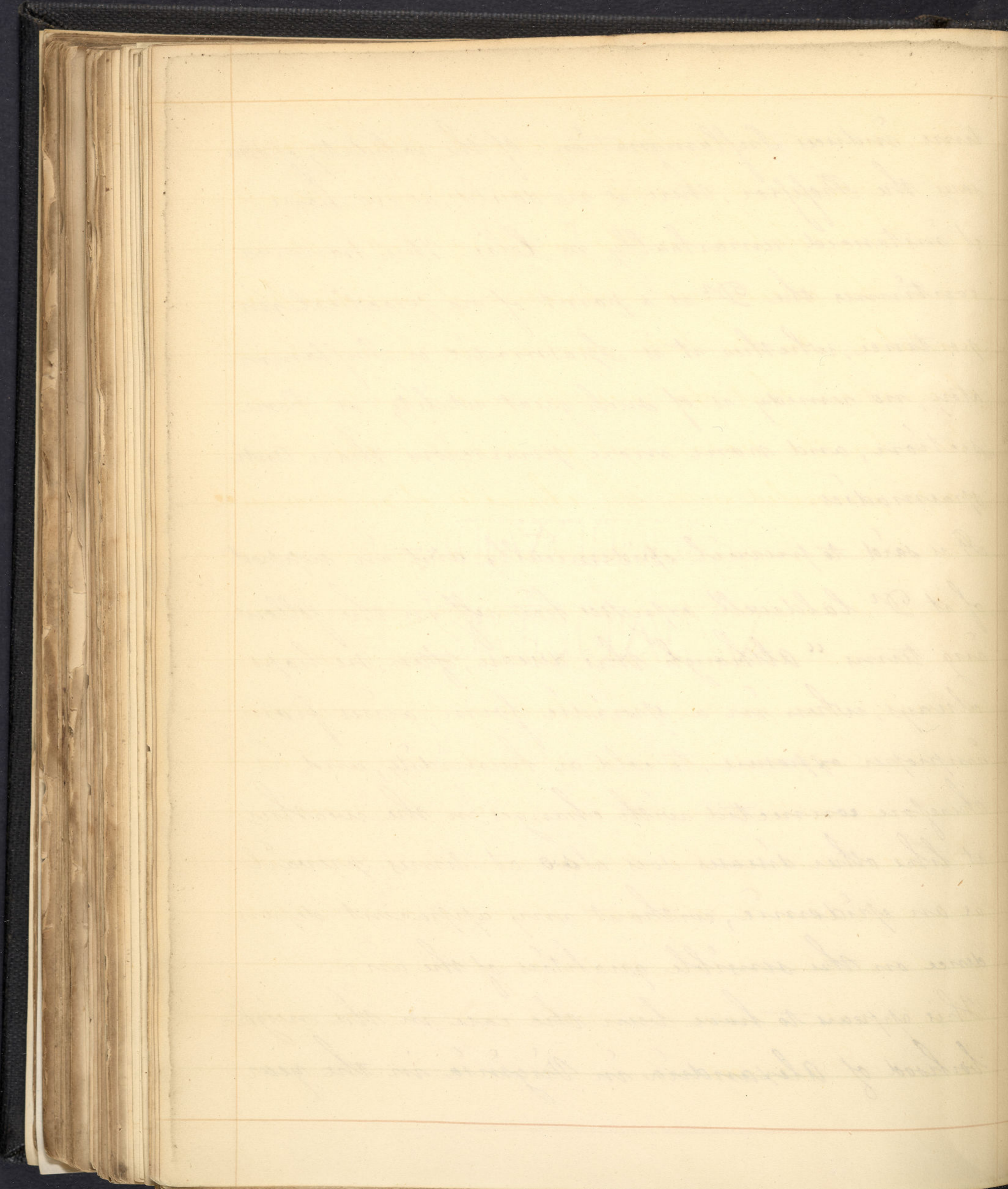
It has likewise been distinguished into Spasmodic and Inflammatory croup, but objected to by some, who say it uniformly arises from Inflammation: It is however the opinion of our worthy Professor Dr Chapman, that when the patient is attacked very suddenly, it is Spasmodic, which continuing for a sufficient length of time induces Inflammation.



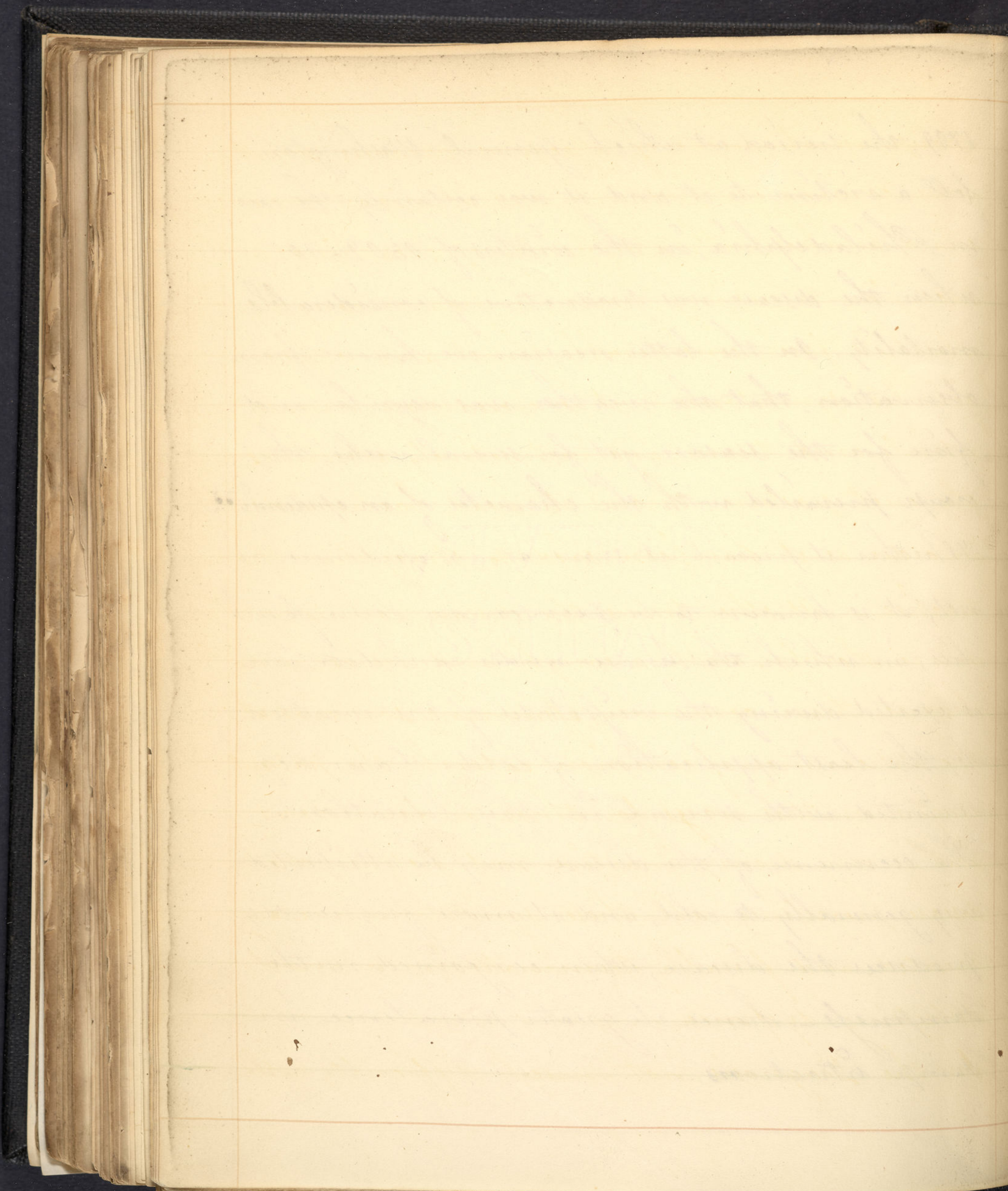
time, induces Inflammation: of the validity of this says the Professor, there is no doubt, as we have it instanced remarkably in Colic. This however continues the D^r is a point of no practical importance, whether it is Spasmodic or Inflammatory, no remedy is of such great utility as Venesection, and none more pernicious, than Anti-spasmodics.

It is said to prevail epidemically and in support of it Dr Caldwell expresses himself in the following terms "Although this disease, often, perhaps always, when in a sporadic form, arises from improper exposure, to cold or humidity, and is therefore connected with changes in the weather, it like other diseases does ~~also~~ at times prevail as an epidemic, without any apparent dependence on the sensible qualities of the air.

This appears to have been the case in the neighborhood of Alexandria in Virginia in the year



1799, the period at which General Washington fell a victim to it, and it was certainly the case in Philadelphia, in the winters of 1809-10 when the disease was productive of considerable mortality. On the latter occasion we know from observation, that the weather was regular and fine for the season, yet for several weeks, the croup prevailed with the character of an epidemic. Whether it prevail at times as an epidemic or not, it is known to be peculiar in some families, in which the disease under consideration is excited during the vicissitudes of the weather by the least application of cold. I am acquainted with several in this situation. The occurrence of the disease may be attributed very generally to cold, and it more frequently produces the disease, when conjoined with dampness - hence its greater prevalence in damp situations.



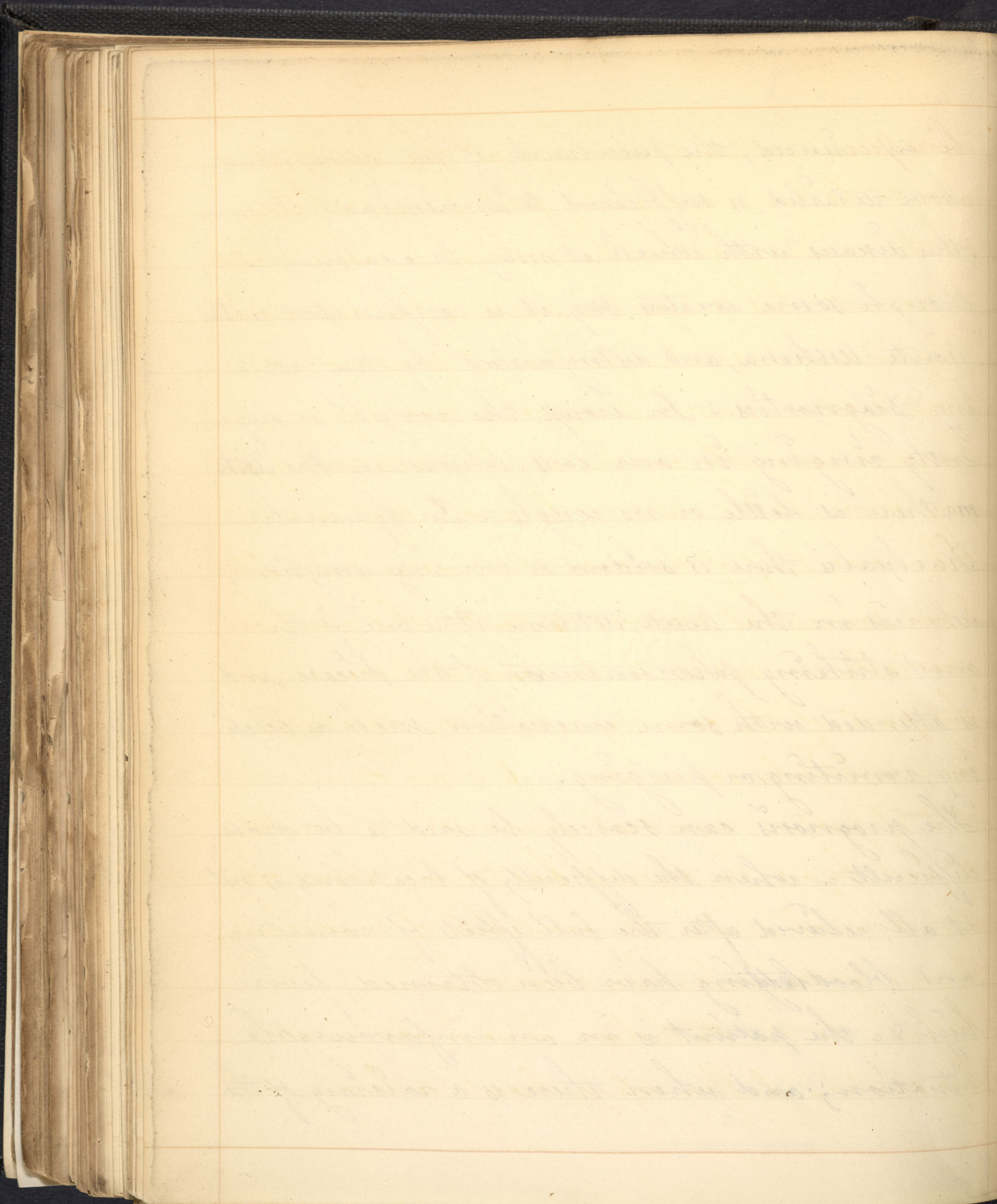
Every trace but one variety
omitted

Croup in its mode of attack is various, sometimes coming on suddenly and at night; the child awakes, with a difficulty of breathing, a peculiar wheezing noise, a hoarse cough, flushed face, considerable thirst and other febrile symptoms; it is exceedingly uneasy, whirls and turns, and instinctively assumes the erect posture, throws its head backwards in order as it has been said, to straighten the trachea - At other times the disease comes on more slowly, with a cough and voice more hoarse than common, assuming somewhat the appearance of common catarrh, the patient lingers in this way for three or four days, and is very drowsy inactive and fretful; the disease progressing, all these symptoms are aggravated, and finally terminates in a most distressing dyspnoea.

In the Diagnosis not much difficulty will

be experienced, the peculiarity of the symptoms above detailed, is sufficient, to discriminate it from other diseases with which it may be confounded; though some writers say it is confounded with Acute Asthma, and distinguished by the following Diagnostics - In Croup the cough is frequently ringing in our ears, whereas in the Asthma there is little or no cough - In Laryngeal Tracheitis there is seldom or ever any remission, whereas in the Acute Asthma it is one of the most striking phenomenon of the disease, and is attended with some evacuation, such as belching, vomiting or purging.

The prognosis can scarcely be said to be more difficult - when the difficulty of breathing is not at all relieved after the full effects of vomiting and bloodletting have been obtained, fever high &c the patient is in an unfavourable situation; and when there is a raising of the



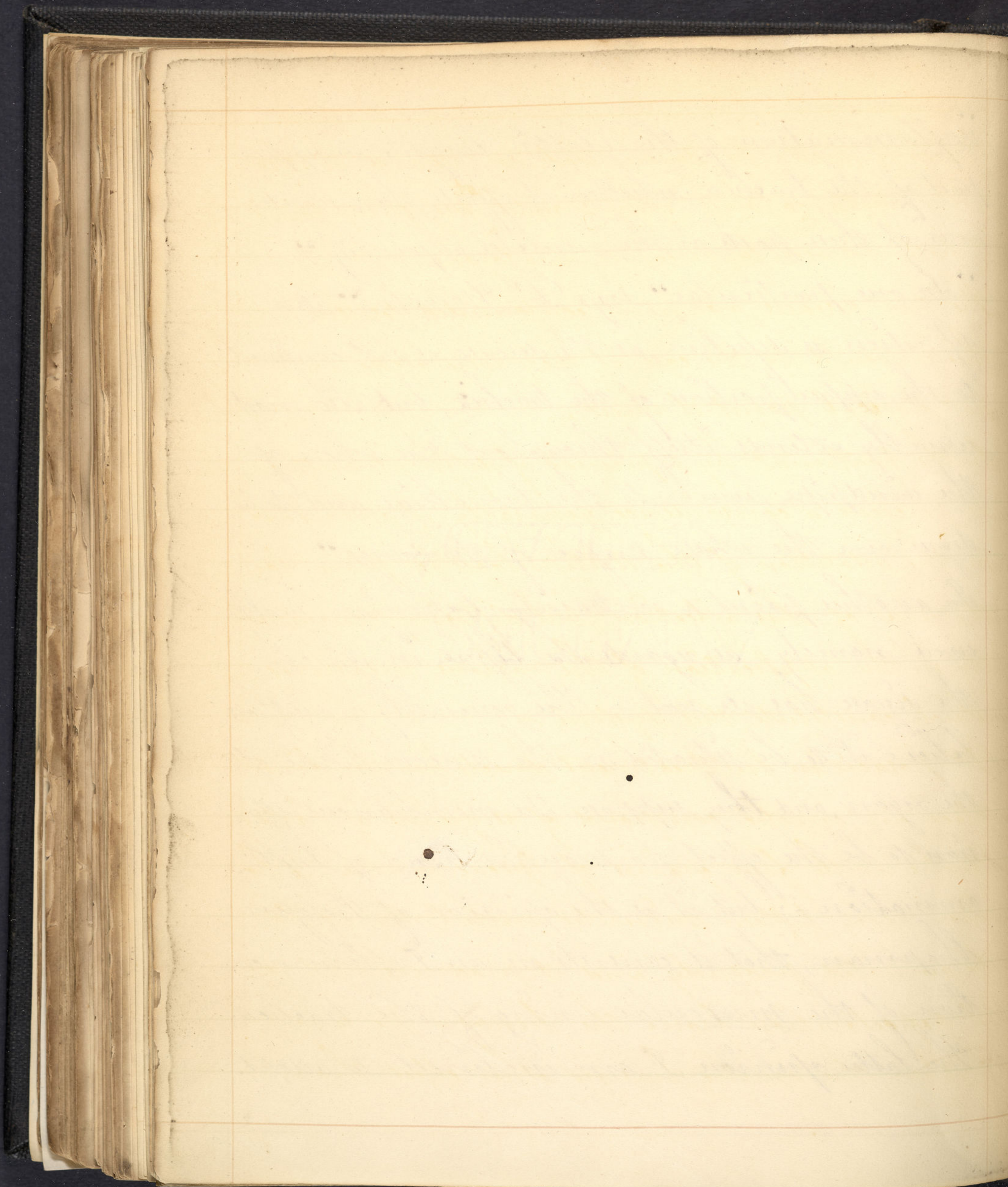
shoulders, with a thumping at the heart, it is said to be an uniformly fatal prognostic. On the contrary when the patient is easily excited to vomit, has a regular pulse, a free expectoration and an equal diffusion of temperature, there is every reason to expect a recovery. Croup is generally considered by practitioners, a very formidable disease. Caldwell says more than one half of the cases that occur prove fatal. I am somewhat disposed to doubt this assertion, especially in regard to the cases that occur in this part of the country where the disease is comparatively common; it is my opinion that if proper remedial measures be resorted to, and before the disease has too far advanced, it is as much under the controul of medicine as any of the infantile diseases. Relative to the Pathology, much controversy has existed, Lullien defines croup to be an

...with a ...
...to be an ...
...the country ...
...but a ...
...and ...
...in every ...
...is generally ...
...the ...
...are half of the ...
...are ...
...in ...
...the part of the ...
...of ...
...of ...
...before the ...
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"Inflammation of the glottis, larynx, or upper part of the trachea; whether it affects the membranes of these parts or the muscles adjoining."

"In one particular" says Dr. Glosack "this definition is defective, as the disease is not confined to the upper portion of the trachea, but also most usually extends itself throughout the whole of the windpipe, even into the bronchiae, and to a degree over the whole surface of the lungs."

In another point a contrariety of opinion is observed - namely - as regards the tissue in which the disease has its seat - The generality of authors believe it to be situated in the mucous tissue of the organ, and they suppose the membranous effusion to be the effect of a peculiar kind of inflammation; but it is the opinion of Professor Chapman, that it consists in an inflammation of the muscular lining of the trachea; The latter opinion I am inclined to adopt.

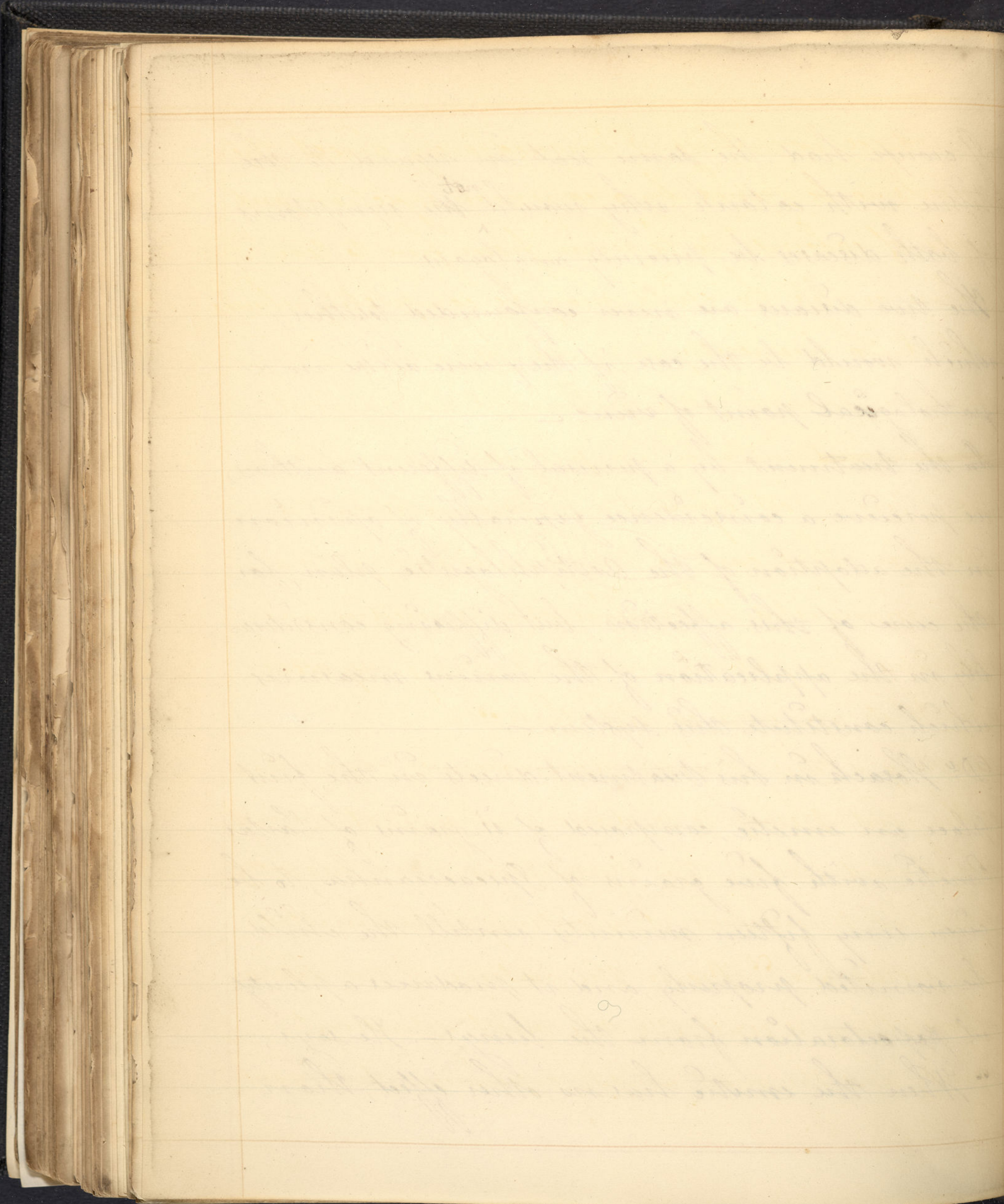


If croup had the same seat in regard to the
tissue with catarrh, why would ^{not} the symptoms
of both diseases be precisely analogous—

The two diseases are never confounded together,
which would be the case, if they were alike in a
pathological point of view—

In the treatment by a perusal of different authors,
we perceive a coincidence generally, of opinion
in the adoption of the Antiphlogistic plan, for
the cure of this affection, but differing considera-
bly in the application of the various measures
which constitute this system—

Dr. Hoesch in his treatment directs in the first
place an emetic, composed of ii grains of Tartar
Emetic with five grains of Spicaacantha, to be
given every fifteen minutes untill the child
be vomited properly, and it produces a plentif-
ul expectoration from the lungs— He says,
“When the emetic has no other effect, than



to produce vomiting, I immediately direct the bowels to be opened by a common injection, and a dose of calomel to be given, from five to ten grains, unless the child may be completely relieved; but it too frequently happens that many of the common family prescriptions are in the first ~~in the first~~ instance employed, and much valuable time lost before the physician is called upon; in that case if the febrile symptoms have manifested themselves, other remedies are indicated, the patient should be bled freely according to its age and constitution."

Contrary to this Burns recommends, venesection as the first thing to be done and if that be not performed until the symptoms have perfectly developed themselves, it is entirely to be omitted. His words are "From the nature of the disease bloodletting is evidently the most appropriate, remedy and the most ample experience, has now

convinced me, that it is the only remedy in which
in severe cases dependance can be placed. There
are however two facts which I wish earnestly
to impress upon the reader: the one is that
this remedy is only useful in the very comm
encement of this disease; for if it be neglected
untill the disease has lasted untill the symptoms
have become very severe, and more especially, untill
they have lasted for many hours, it only increases
suffocation and hastens death; the other is that
the blood ought to be taken at once from the
arm.

Dr. Hamilton discards wholly the use of venise
ction, and depends solely upon calomel for its
radication. He says "For the cure of this
formidable affection, practitioners formerly trust
ed to bleeding, with the use of vomits and blisters
as auxiliaries; but the result of this practice, was
in the more favourable cases, a very considerable

shock to the child's constitution, and in the majority of instances the death of the child; These circumstances rendered it fair to make trial of the practice, of giving calomel, first suggested by some American physicians.

Accordingly it was resorted to, and in every case (amounting now to above 40) in which it was used, it completely succeeded in curing the disease, and in preventing any shock to the child's constitution, if administered to before the occurrence of hardness of the lips, and other mortal symptoms.

This with the warm bath and a proper regulation of diet, constitutes the treatment, of Dr James Hamilton of Edinburgh, which though emanating from so high authority, is absolutely inadequate to the performance of such remarkable cures in America.

That calomel occasionally may by its very

early exhibition in some cases effect a reduction of the disease, I believe, but that it will do it in all cases, when used "previous to the occurrence of lividness of the lips and other mortal symptoms" appears to be contradicted by experience. In the forming stage of houp no one remedy promises more than Emetics—

Judging from the experience that I have had with the disease, I am compelled to state, as, my opinion ^{that} if they be resorted to, before the Inflammatory symptoms have made their appearance, four cases out of six will not require the use of the lancet.

Therefore vomiting is the first thing to be done; whether called in the commencement or advanced stage of the disease, because they are not restricted to the forming stage, but are useful in every stage of the disease; though by no means do I wish to insinuate, that it is a

remedy upon which we are to place too great reliance, or not to resort to other means, if relief be not obtained: on the contrary I am well aware, that in many cases more is required than emesis.

Therefore should the complaint not yield to the proper exhibition of emetics, the lancet is loudly called for; blood must be promptly drawn from the arm, and the child placed in the warm bath to remain for fifteen minutes, should circumstances justify.

Next Local bleeding by cups or leeches, applied to the neck, must be resorted to, and a blister put around the neck. These failing we again resort to venesection, and it is recommended to bleed "ad deliquium animi".

Many Practitioners object to so rigorous adoption of these measures, on the ground say they, that children when reduced to this degree suffer immensely

from the shock to the constitution, which if they recover is very great. By a careful perusal of the following observations of Professor Chapman I have been led to believe the contrary to be true.

"During the growth of the body, the fluids and especially the blood, in relation to the solids are large in quantity, as is distinctly shown by a variety of circumstances.

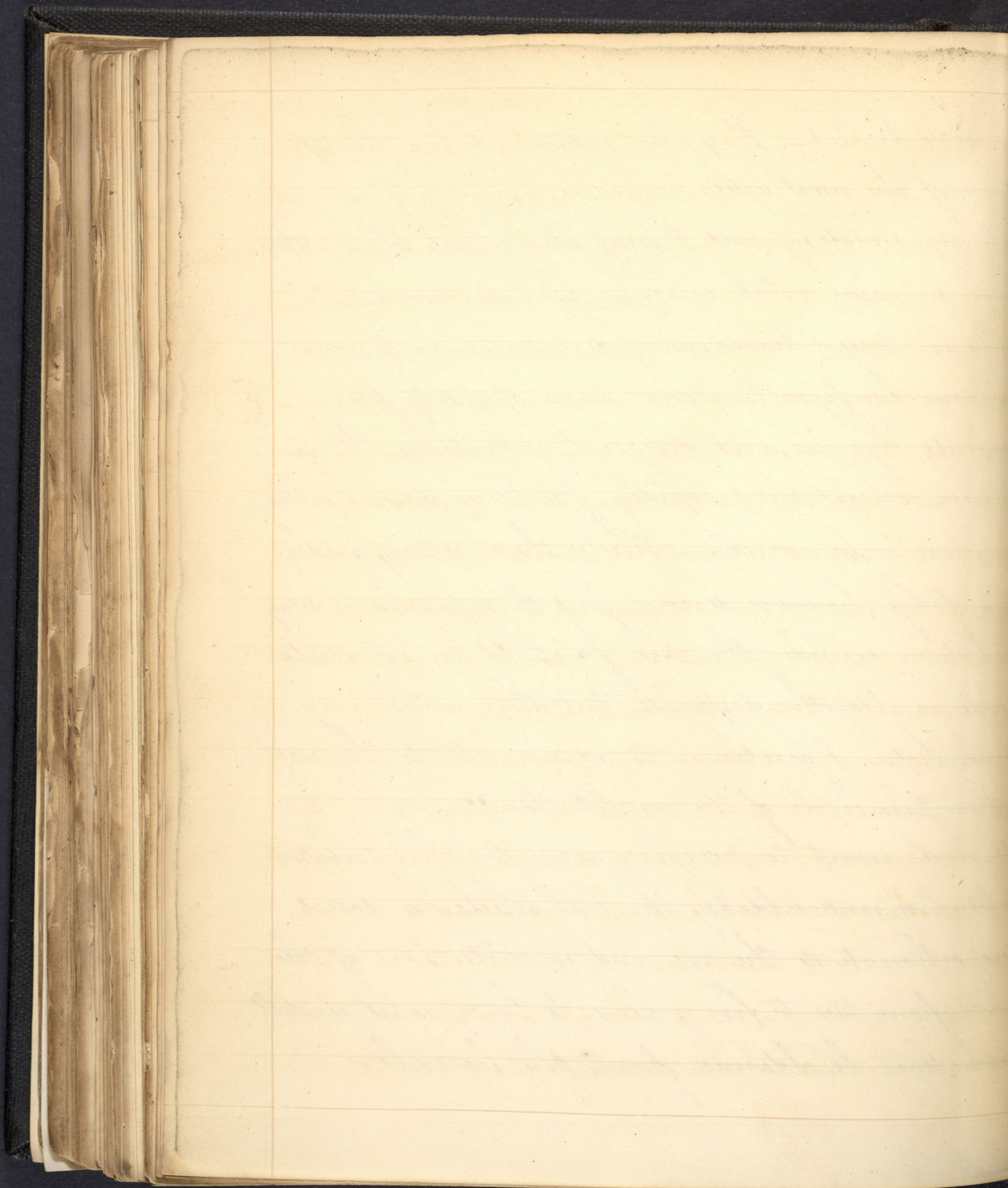
The fulness of their vessels render children peculiarly liable to Inflammatory affections. Nearly all their diseases partake of this nature in some degree. It follows therefore they require often to be bled. My own experience confirmed by that of other practitioners, has perfectly satisfied me that bloodletting may be used with as much safety and decidedly with greater advantage in the complaints of children, than those of adults. If too they do not bear the loss of blood, better at the time, they undoubtedly recover sooner from its effects.

The prejudice against bleeding children, seems to have arisen out of the too prevalent opinion, that owing to an extreme delicacy of constitution, they cannot bear any vigorous impressions. As a natural consequence of this opinion, the general practice in their complaints, is extremely feeble, exactly indeed of that kind which has been facetiously described, as observing a strict neutrality between the patient and disease, neither declaring for the one nor the other. By no slender nor partial observation, I am thoroughly convinced the contrary of this to be true.

Children I have remarked display an uncommon tenacity of life and strength of constitution. They often survive under circumstances, which would destroy adults. They have been found living at the breasts of their mothers, who had perished by cold. They resist contagion better than adults, and when attacked more certainly recover, from not only the contagious disease, but from all others if

properly treated. They also sustain better the operation of the most active remedies, namely of vomiting, purging, sweating, and I may also repeat blood letting. These superior vital energies give moreover to children very extraordinary recuperative powers. Children confessedly recover more speedily, from wounds, injuries, and surgical operations. They likewise recruit, more rapidly, after being reduced, either by disease or by remedies. While there is any indication of life, however discouraging the appearances may be, I never consider the case of a child, in an acute disease, as altogether desperate, but still retaining some hope I continue to administer to the restorative principle of the constitution.

We now resort to purging and for this purpose calomel is undoubtedly the best article in doses proportionate to the age and constitution of the child from two to five grains, to be repeated until evacuation be obtained from the bowels.



A glyster occasionally, will be of service, in assist-
ing to keep the bowels open -

Attention must be paid to diet, which must
be low consisting of demulcent drinks as barley
water, flaxseed tea, toast water &c

During the continuance of the disease, a strict ad-
herence to antiphlogistic principles must be ob-
served, and after the patient has been depleted as
much as is consistent with its strength, by the rem-
edies above enumerated - namely - by emetics,
bloodletting both general and local, purging and
blistering, if there remain a cough, oppression at
the breast, and difficulty of expectoration, we should
have recourse to expectorants, and for this purp-
ose the *Polygala Senega* is much recommended.

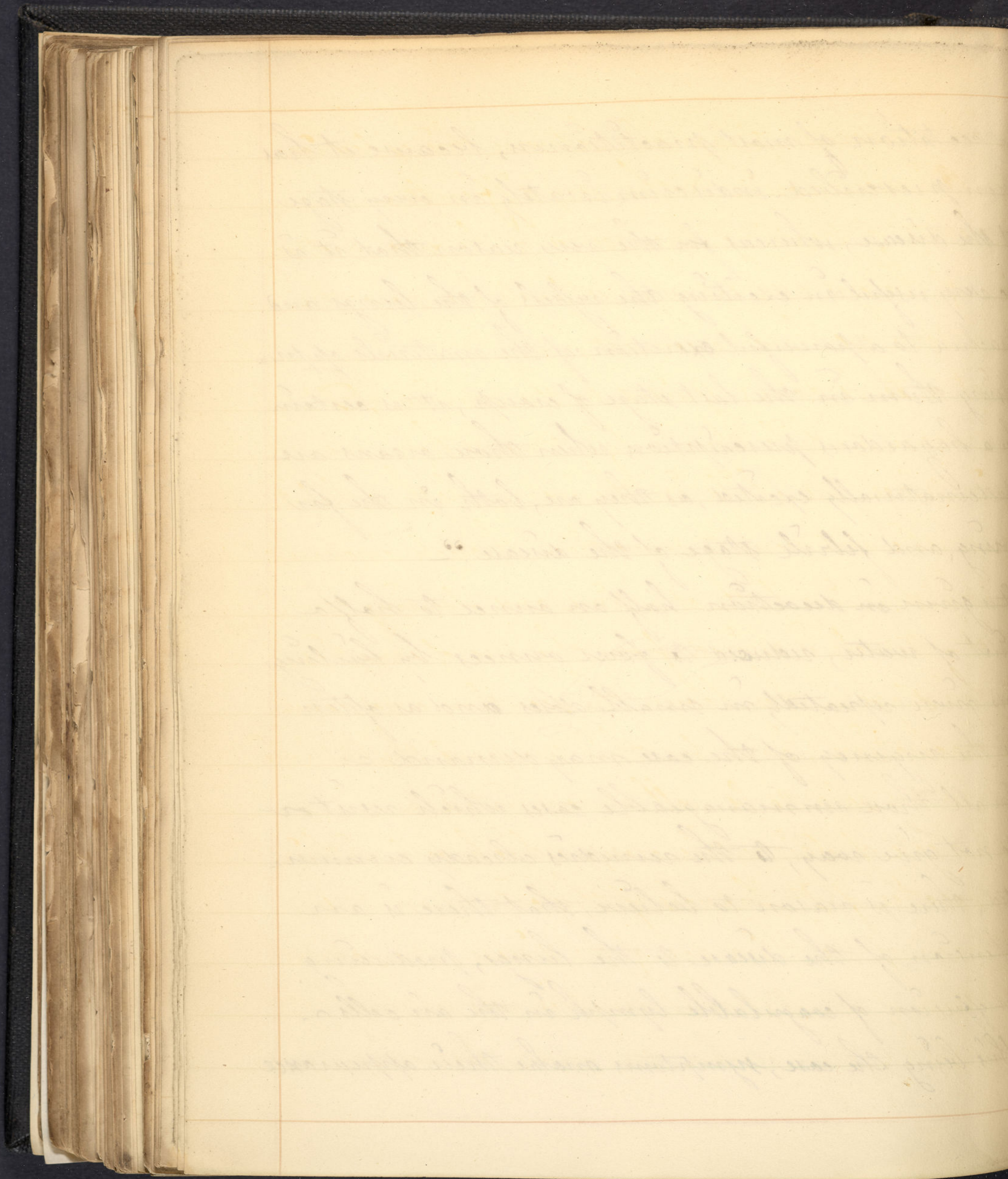
"Dr Archer of Maryland has rendered an im-
portant service to medicine, by introducing into
general use the *Polygala Senega* as a remedy in
croup. Hitherto it has certainly disappointed, the

expectation of most practitioners, because it has been prescribed, indiscriminately in every stage, of the disease, whereas for the very reason that it is so very useful in exciting the vessels of the lungs and trachea to a powerful excretion of the materials oppressing them in the last stage of croup, it is certainly a hazardous prescription when those organs are preternaturally excited, as they are, both in the foregoing, and fibrile stage of the disease."

It is given in decoction half an ounce to half a pint of water, reduced to four ounces by boiling, and given repeatedly in small doses and as often as the urgency of the case may demand.

In all those unmanageable cases, which resist or do not give way, to the remedies already enumerated, there is reason to believe, that there is an extension of the disease to the lungs, producing an effusion of coagulable lymph in the air cells.

This being the case, symptoms make their appearance



which render the Diagnosis between this affection and *Peripneumonia Notha*, very difficult.

Difficulty of breathing, turgescence of the face, protrusion of the eyes and extreme restlessness, are now the symptoms we have to combat.

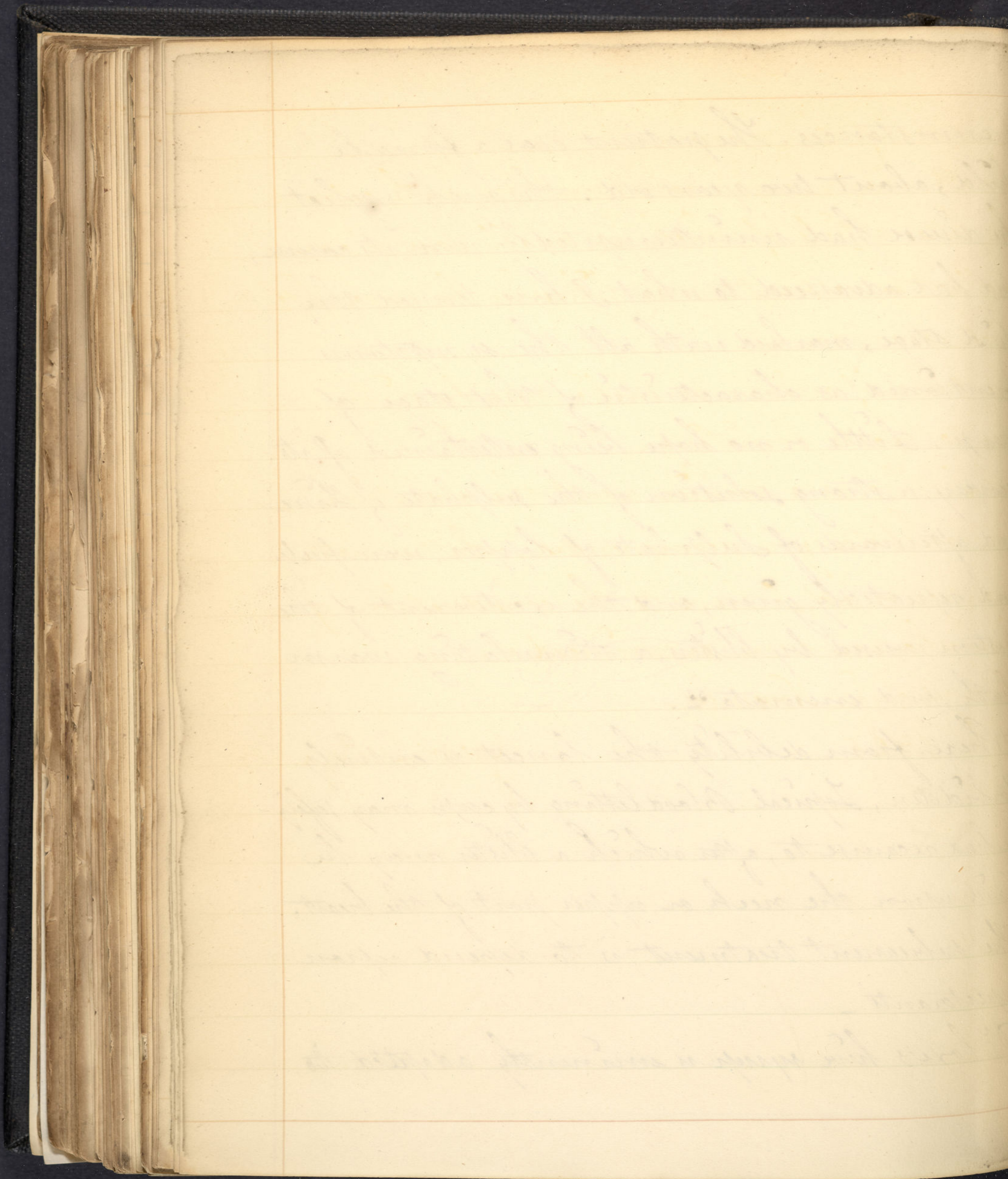
What is to be done; Guided by the maxim of Dr Chapman, (while there is life there is hope) we again place the child in the warm bath, exhibit an emetic and recur to venesection, though cautiously, drawing little at a time and observing the effect. Much is derived from the use of emetics in this stage; they loosen the secretion and cause its evacuation; and for this purpose the *Vitriolic Emetics* are said to be well appropriated.

"In a case of Idiopathic croup which fell within the practice of Dr Francis of this city upon the afternoon of the third day of the disease, the salutary operation of the *Vitriolic emetics* was happily manifested, even under the most discouraging

circumstances. The patient was a female child, about two years old: through neglect the disease had uninterruptedly run its course, and had advanced to what I have termed the third stage, marked with all the symptoms mentioned as characteristic of that stage of croup. Little or no hope being entertained of its recovery, a strong solution of the sulphate of Lime and afterwards of Sulphate of Copper, were freely and repeatedly given, and the excitement of the system roused by blisters, a stimulating warm bath, and enemata.

Where from debility the lancet is entirely forbidden, Topical Bloodletting by cups may safely be had recourse to, after which a blister may be laid upon the neck or upper part of the breast; The subsequent treatment is to depend upon expectorants -

Dr. Cox's hore syrup is eminently adapted to,



this stage of the disease -

Squill alone or in combination, with calomel, (the latter article of which in small doses is an excellent expectorant) may likewise be used with great advantage -

The juice of onions or garlic may be given even to excite vomiting -

All failing as a dernier resort the operation of Bronchotomy is recommended, whether with advantage or not, I leave to the consideration of those who are more experienced.

Pennsylvania November.

1825

Jacob Lentz.

